FEB 0 3 2003

SEQUENCE LISTING

<110> Inouye, Roger T.
 Torres-Viera, Carlos
 Moellering, Robert
 Gold, Howard
 Eliopoulos, George M.

<120> METHODS AND COMPOSITIONS FOR RESTORING ANTIBIOTIC SUSCEPTIBILITY
IN GLYCOPEPTIDE-RESISTANT ENTEROCOCCUS

<130> B00662.70036.US

<140> US 10/049,935

<141> 2000-08-11

<150> US 60/149,313

<151> 1999-08-17

<160> 39

<170> FastSEQ for Windows Version 3.0

<210> 1

<211> 10851

<212> DNA

<213> Enterococcus faecium

<400> 1

ggggtagcgt caggaaaatg cggatttaca acgctaagcc tattttcctg acgaatccct 60 cgtttttaac aacgttaaga aagttttagt ggtcttaaag aatttaatga gactactttc 120 totgaqttaa aatggtatto tootaqtaaa ttaatatgtt cocaacctaa gggcgacata 180 tggtgtaaca aatcttcatt aaagctacct gtccgttttt tatattcaac tgctgttgtt 240 aggtggagag tattccaaat acttatagca ttgataatta tgtttaaagc actggctctt 300 tgcaattgat gctgtatggt gcgttctcta agctcacctt gttttccgaa gaaaatagct 360 cttgccaatc cattcatggc ttctccttta ttcaatcctc tttgtatttt tcttcttaat 420 gattcatccg atatataatt caaaataaag atcgtttttt ctattcggcc catctcacgt 480 aaggetgtag ctaagetgtt ttgtettgaa taggaaceta getteeceat aataagggat 540 qctqaaactq ttccctccct tataqaatqa qctaatcqca aaacatcctc ataattttct 600 ttaatgacct ttgtatttat ttgtccacgt aaaatggctt ctagttttgg atactcactt 660 getttateta tegtaaataa ttttgagtee gataaateee ttattettgg ggeaaattta 720 aatcctaata aatgagtcag tccgaatatt tggtcagtgt aaccggcagt gtctgtataa 780 tgttcctcta tgtttagatc cgtctcatga tgtaacaaac catccaaaac atgaatcgca 840 tctcttgaat tagtatgaat aatctttgtg tagtaagaag agaattgatc acttgtaaat 900 cggtagatgg tggctccttt tccagttcca taatgtggat ttgcatctgc atgtagtgat 960 gaaacaccta gctgcattct cataccatct gacgaagatg ttgtaccgtc gccccaatag 1020 aaaggcaatt gtaatttatg atgaaagttt actaatatgg cttgggcttt attcatggca 1080 tetteataca tgegecattg agatacattg getagttget tatatgtaag teegggtgtg 1140 getteggeea tettgeteaa gecaatatte atteceatte etaaaaggge agecatgata 1200 atgattqttt cttccttatc tqqttttcqa ttattqqaaq catgaqtqaa ttqctcatqa 1260 aatcctgtta tatgggccac atccatgagt aaatcagtta attttattct tggtagcatc 1320 tgataaaggc ttgcactaaa tttttttgct tcttctggaa catctttttc taagcgtgca 1380 agtgataget tteettttte aagagaaace ecatetaact tattggaatt ggeagetaac 1440

```
cactttaacc tttcattaaa gctgctggtt ctctccgtta tataatcttc gaatgataaa
                                                                     1500
ctaactgata atctcgtatt ccccttcgat tgattccatg tatcttccga aaacaaatat
                                                                     1560
tecteaaaat ceetatattg tetgetgeea acaatggaaa cateteetge eegaacatge
                                                                     1620
tcccgaagtt ctgttaaaac agccatttca tagtaatgac gattaattgt tgtaccatca
                                                                     1680
teetegtata aatgtetttt eeategtttt gaaataaaat eeacaggtga gteateagge
                                                                     1740
acttttcgct ttccagattc gttcattcct cggataatct caacagcttg taaaagtggc
                                                                     1800
tcatttgcct ttgtagaatg aaattccaat actcttaata gcgttggcgt atattttctt
                                                                     1860
agtgaataaa accgtttttg cagtaagtct aaataatcat agtcggcagg acgtgcaagt
                                                                     1920
tectgageet ettetaetga agagacaaag gtatteeatt caataacega ttetaaaace
                                                                     1980
ttaaaaacgt ctaatttttc ctctcttgct ttaattaatg cttgtccgat gttcgtaaag
                                                                     2040
tgtataactt tctcatttag ctttttaccg ttttgtttct ggatttcctc ttgagcctta
                                                                     2100
cgaccttttg ataacaaact aagtatttgc ctatcatgaa tttcaaacgc tttatccgtt
                                                                     2160
ageteetgag taagttgtaa taaatagatg gttaatateg aataaegttt attttettga
                                                                     2220
aagtcacgga atgcatacgg ctcgtatctt gagcctaagc gagacagctg caacaggcgg
                                                                     2280
ttacggtgca aatgactaat ttgcactgtt tctaaatcca ttcctcgtat gtattcgagt
                                                                     2340
cgttctatta tttttagaaa agtttcgggt gaaggatgac ccggtggctc ttttaaccaa
                                                                     2400
cccaatatcg ttttattgga ttcggatgga tgctgcgagg taataatccc ttcaagcttt
                                                                     2460
tctttttgct catttgttag agatttacta accgtattaa atagcttctt ttcagccatt
                                                                     2520
gcccttgctt cccacaccat tctttcaagt gtagtgatag caggcagtat aattttgttt
                                                                     2580
tttcttagaa aatctatgca ttcatgcagt agatgaatgg catcaccatt ttccaaagct
                                                                     2640
aattgatgaa ggtacttaaa tgtcattcga tattcactca gggtaaaagt tacaaagtcg
                                                                     2700
tattcacttc gaatttcttt caaatgatcc caaagtgtat tttccctttg aggataatga
                                                                     2760
tcaagcgagg atggactaac accaatctgt ttcgatatat attgtatgac cgaatctggg
                                                                     2820
atgettttga tatgagtgta tggccaaccg ggataccgaa gaacagctaa ttgaacagca
                                                                     2880
aatcctaaac ggttttcttc cctccttcgc ttattaacta tttctaaatc ccgtttggaa
                                                                     2940
aaagtgaagt aggtccccag tatccattca tcttcaggga tttgcataaa agcctgtctc
                                                                     3000
tgttccggtg taagcaattc tctacctctc gcaattttca ttcagtatca ttccatttct
                                                                     3060
gtattttcaa tttattagtt caattatata tcaatagagt gtactctatt gatacaaatg
                                                                     3120
tagtagactg ataaaatcat agttaagagc gtctcataag acttgtctca aaaatgaggt
                                                                     3180
gatattttgc ggaaaatcgg ttatattcgt gtcagttcga ctaaccagaa tccttcaaga
                                                                     3240
caatttcagc agttgaacga gatcggaatg gatattatat atgaagagaa agtttcagga
                                                                     3300
gcaacaaagg atcgcgagca acttcaaaaa gtgttagacg atttacagga agatgacatc
                                                                     3360
atttatgtta cagacttaac tcgaatcact cgtagtacac aagatctatt tgaattaatc
                                                                     3420
gataacatac gagataaaaa ggcaagttta aaatcactaa aagatacatg gcttgattta
                                                                     3480
tcagaagata atccatacag ccaattctta attactgtaa tggctggtgt taaccaatta
                                                                     3540
gagcgagatc ttattcggat gagacaacgt gaagggattg aattggctaa gaaagaagga
                                                                     3600
aagtttaaag gtcgattaaa gaagtatcat aaaaatcacg caggaatgaa ttatgcggta
                                                                     3660
aagetatata aagaaggaaa tatgaetgta aateaaattt gtgaaattae taatgtatet
                                                                     3720
agggetteat tatacaggaa attateagaa gtgaataatt agecattetg tatteegeta
                                                                     3780
atgggcaata tttttaaaga agaaaaggaa actataaaaat attaacagcc tcctagcgat
                                                                     3840
gccgaaaagc cctttgataa aaaaagaatc atcatcttaa gaaattctta gtcatttatt
                                                                     3900
atgtaaatgc ttataaattc ggccctataa tctgataaat tattaagggc aaacttatgt
                                                                     3960
gaaagggtga taactatgag cgataaaata cttattgtgg atgatgaaca tgaaattgcc
                                                                     4020
gatttggttg aattatactt aaaaaacgag aattatacgg ttttcaaata ctataccgcc
                                                                     4080
aaagaagcat tggaatgtat agacaagtct gagattgacc ttgccatatt ggacatcatg
                                                                     4140
                                                                     4200
etteceggea caageggeet tactatetgt caaaaaataa gggacaagea cacetateeg
attatcatgc tgaccgggaa agatacagag gtagataaaa ttacagggtt aacaatcggc
                                                                     4260
                                                                      4320
geggatgatt atataacgaa gecetttege ceaetggagt taattgeteg ggtaaaggee
                                                                     4380
cagttgcgcc gatacaaaaa attcagtgga gtaaaggagc agaacgaaaa tgttatcgtc
cactccggcc ttgtcattaa tgttaacacc catgagtgtt atctgaacga gaagcagtta
                                                                      4440
tecettaete ceaecgagtt tteaataetg egaateetet gtgaaaacaa ggggaatgtg
                                                                      4500
gttagctccg agctgctatt tcatgagata tggggcgacg aatatttcag caagagcaac
                                                                      4560
aacaccatca ccgtgcatat ccggcatttg cgcgaaaaaa tgaacgacac cattgataat
                                                                      4620
```

```
ccgaaatata taaaaacggt atggggggtt ggttataaaa ttgaaaaata aaaaaaacga
                                                                     4680
ctattccaaa ctagaacgaa aactttacat gtatatcgtt gcaattgttg tggtagcaat
                                                                      4740
                                                                      4800
tgtattcgtg ttgtatattc gttcaatgat ccgagggaaa cttgggggatt ggatcttaag
tattttggaa aacaaatatg acttaaatca cctggacgcg atgaaattat atcaatattc
                                                                      4860
catacggaac aatatagata tetttattta tgtggcgatt gtcattagta ttettattet
                                                                      4920
atgtcgcgtc atgctttcaa aattcgcaaa atactttgac gagataaata ccggcattga
                                                                      4980
tgtacttatt cagaacgaag ataaacaaat tgagctttct gcggaaatgg atgttatgga
                                                                      5040
                                                                     5100
acaaaagctc aacacattaa aacggactct ggaaaagcga gagcaggatg caaagctggc
cgaacaaaga aaaaatgacg ttgttatgta cttggcgcac gatattaaaa cgccccttac
                                                                      5160
atccattatc ggttatttga gcctgcttga cgaggctcca gacatgccgg tagatcaaaa
                                                                      5220
                                                                      5280
ggcaaagtat gtgcatatca cgttggacaa agcgtatcga ctcgaacagc taatcgacga
gttttttgag attacacggt ataacctaca aacgataacg ctaacaaaaa cgcacataga
                                                                      5340
cctatactat atgctggtgc agatgaccga tgaattttat cctcagcttt ccgcacatgg
                                                                      5400
aaaacaggcg gttattcacg cccccgagga tctgaccgtg tccggcgacc ctgataaact
                                                                      5460
cgcgagagtc tttaacaaca ttttgaaaaa cgccgctgca tacagtgagg ataacagcat
                                                                      5520
                                                                      5580
cattgacatt accgcgggcc tctccgggga tgtggtgtca atcgaattca agaacactgg
aagcatccca aaagataagc tagctgccat atttgaaaag ttctataggc tggacaatgc
                                                                      5640
                                                                      5700
tegttettee gataegggtg gegegggaet tggattggeg attgeaaaag aaattattgt
                                                                      5760
tcagcatgga gggcagattt acgcggaaag caatgataac tatacgacgt ttagggtaga
gcttccagcg atgccagact tggttgataa aaggaggtcc taagagatgt atataatttt
                                                                      5820
ttaggaaaat ctcaaggtta tctttacttt ttcttaggaa attaacaatt taatattaag
                                                                      5880
aaacggctcg ttcttacacg gtagacttaa taccgtaaga acgagccgtt ttcgttcttc
                                                                      5940
                                                                     6000
agagaaagat ttgacaagat taccattggc atccccgttt tatttggtgc ctttcacaga
                                                                     6060
aagggttggt cttaattatg aataacatcg gcattactgt ttatggatgt gagcaggatg
aggeagatge attecatget etttegeete getttggegt tatggeaacg ataattaaeg
                                                                     6120
                                                                     6180
ccaacgtgtc ggaatccaac gccaaatccg cgcctttcaa tcaatgtatc agtgtgggac
ataaatcaga gatttccgcc tctattcttc ttgcgctgaa gagagccggt gtgaaatata
                                                                     6240
                                                                     6300
tttctacccg aagcatcggc tgcaatcata tagatacaac tgctgctaag agaatgggca
tcactgtcga caatgtggcg tactcgccgg atagcgttgc cgattatact atgatgctaa
                                                                     6360
                                                                     6420
ttettatgge agtacgeaac gtaaaatega ttgtgegete tgtggaaaaa catgatttea
                                                                     6480
ggttggacag cgaccgtggc aaggtactca gcgacatgac agttggtgtg gtgggaacgg
gccagatagg caaagcggtt attgagcggc tgcgaggatt tggatgtaaa gtgttggctt
                                                                     6540
                                                                     6600
atagtcgcag ccgaagtata gaggtaaact atgtaccgtt tgatgagttg ctgcaaaata
gcgatatcgt tacgcttcat gtgccgctca atacggatac gcactatatt atcagccacg
                                                                     6660
aacaaataca gagaatgaag caaggagcat ttcttatcaa tactgggcgc ggtccacttg
                                                                      6720
tagataccta tgagttggtt aaagcattag aaaacgggaa actgggcggt gccgcattgg
                                                                      6780
atgtattgga aggagaggaa gagtttttct actctgattg cacccaaaaa ccaattgata
                                                                      6840
                                                                      6900
atcaattttt acttaaactt caaagaatgc ctaacgtgat aatcacccg catacggcct
                                                                      6960
attataccga gcaagcgttg cgtgataccg ttgaaaaaac cattaaaaac tgtttggatt
ttgaaaggag acaggagcat gaatagaata aaagttgcaa tactgtttgg gggttgctca
                                                                      7020
gaggagcatg acgtatcggt aaaatctgca atagagatag ccgctaacat taataaagaa
                                                                      7080
                                                                      7140
aaatacgagc cgttatacat tggaattacg aaatctggtg tatggaaaat gtgcgaaaaa
                                                                      7200
ccttgcgcgg aatgggaaaa cgacaattgc tattcagctg tactctcgcc ggataaaaaa
                                                                      7260
atgcacggat tacttgttaa aaagaaccat gaatatgaaa tcaaccatgt tgatgtagca
ttttcagctt tgcatggcaa gtcaggtgaa gatggatcca tacaaggtct gtttgaattg
                                                                      7320
teeggtatee ettttgtagg etgegatatt caaageteag caatttgtat ggacaaateg
                                                                      7380
ttgacataca tcgttgcgaa aaatgctggg atagctactc ccgccttttg ggttattaat
                                                                      7440
aaagatgata ggccggtggc agctacgttt acctatcctg tttttgttaa gccggcgcgt
                                                                      7500
tcaggetcat cetteggtgt gaaaaaagte aatagegegg aegaattgga etaegeaatt
                                                                      7560
                                                                      7620
gaatcggcaa gacaatatga cagcaaaatc ttaattgagc aggctgtttc gggctgtgag
gteggttgtg eggtattggg aaacagtgee gegttagttg ttggegaggt ggaccaaate
                                                                      7680
aggetgeagt aeggaatett tegtatteat eaggaagteg ageeggaaaa aggetetgaa
                                                                      7740
aacgcagtta taaccgttcc cgcagacctt tcagcagagg agcgaggacg gatacaggaa
                                                                      7800
```

```
acggcaaaaa aaatatataa agcgctcggc tgtagaggtc tagcccgtgt ggatatgttt
                                                                    7860
ttacaagata acggccgcat tgtactgaac gaagtcaata ctctgcccgg tttcacgtca
                                                                    7920
tacagtcgtt atccccgtat gatggccgct gcaggtattg cacttcccga actgattgac
                                                                    7980
cgcttgatcg tattagcgtt aaaggggtga taagcatgga aataggattt actttttag
                                                                    8040
atgaaatagt acacggtgtt cgttgggacg ctaaatatgc cacttgggat aatttcaccg
                                                                    8100
gaaaaccggt tgacggttat gaagtaaatc gcattgtagg gacatacgag ttggctgaat
                                                                    8160
cgcttttgaa ggcaaaagaa ctggctgcta cccaagggta cggattgctt ctatgggacg
                                                                    8220
gttaccgtcc taagcgtgct gtaaactgtt ttatgcaatg ggctgcacag ccggaaaata
                                                                    8280
acctgacaaa ggaaagttat tatcccaata ttgaccgaac tgagatgatt tcaaaaqqat
                                                                    8340
acgtggcttc aaaatcaagc catagccgcg gcagtgccat tgatcttacg ctttatcgat
                                                                    8400
tagacacggg tgagcttgta ccaatgggga gccgatttga ttttatggat gaacgctctc
                                                                    8460
atcatgcggc aaatggaata tcatgcaatg aagcgcaaaa tcgcagacgt ttgcgctcca
                                                                    8520
tcatggaaaa cagtgggttt gaagcatata gcctcgaatg gtggcactat gtattaagag
                                                                    8580
acgaaccata ccccaatagc tattttgatt tccccgttaa ataaactttt aaccgttgca
                                                                    8640
eggacaaact atataageta actettegg caggaaacce gacgtatgta actggttett
                                                                    8700
agggaattta tatatagtag atagtattga agatgtaagg cagagcgata ttgcggtcat
                                                                    8760
tatctgcgtg cgctgcggca agatagcctg ataataagac tgatcgcata gaggggtggt
                                                                    8820
atttcacacc gcccattgtc aacaggcagt tcagcctcgt taaattcagc atgggtatca
                                                                    8880
cttatgaaaa ttcatctaca ttggtgataa tagtaaatcc agtagggcga aataattgac
                                                                    8940
tgtaatttac ggggcaaaac ggcacaatct caaacgagat tgtgccgttt aaggggaaga
                                                                    9000
ttctagaaat atttcatact tccaactata tagttaagga ggagactgaa aatgaagaag
                                                                    9060
ttgtttttt tattgttatt gttattctta atatacttag gttatgacta cgttaatgaa
                                                                    9120
gcactgtttt ctcaggaaaa agtcgaattt caaaattatg atcaaaatcc caaagaacat
                                                                    9180
ttagaaaata gtgggacttc tgaaaatacc caagagaaaa caattacaga agaacaqqtt
                                                                    9240
tatcaaggaa atctgctatt aatcaatagt aaatatcctg ttcgccaaga aagtgtgaag
                                                                    9300
teagatateg tgaatttate taaacatgae gaattaataa atggataegg gttgettgat
                                                                    9360
agtaatattt atatgtcaaa agaaatagca caaaaatttt cagagatggt caatgatgct
                                                                    9420
gtaaagggtg gcgttagtca ttttattatt aatagtggct atcgagactt tgatgagcaa
                                                                    9480
agtgtgcttt accaagaaat gggggctgag tatgccttac cagcaggtta tagtgagcat
                                                                    9540
aattcaggtt tatcactaga tgtaggatca agcttgacga aaatggaacg agcccctgaa
                                                                    9600
ggaaagtgga tagaagaaaa tgcttggaaa tacgggttca ttttacgtta tccagaggac
                                                                    9660
aaaacagagt taacaggaat tcaatatgaa ccatggcata ttcgctatgt tggtttacca
                                                                    9720
catagtgcga ttatgaaaga aaagaatttc gttctcgagg aatatatgga ttacctaaaa
                                                                    9780
gaagaaaaaa ccatttctgt tagtgtaaat ggggaaaaaat atgagatctt ttattatcct
                                                                    9840
gttactaaaa ataccaccat tcatgtgccg actaatcttc gttatgagat atcaggaaac
                                                                    9900
aatatagacg gtgtaattgt gacagtgttt cccggatcaa cacatactaa ttcaaggagg
                                                                    9960
taaggatggc ggaatgaaac caacgaaatt aatgaacagc attattgtac tagcactttt
                                                                   10020
ggggtaacgt tagcttttta atttaaaacc cacgttaact aggacattgc tatactaatg
                                                                   10080
atacaactta aacaaaagaa ttagaggaaa ttatattggg aaaaatatta tctagaggat
                                                                   10140
10200
ttttatcagt atttaattat catcaaagaa gtcttaactt gactccattt actgctactg
                                                                   10260
ggaatttcag agagatgata gataatgtta taatctttat tccatttggc ttgcttttga
                                                                   10320
atgtcaattt taaagaaatc ggatttttac ctaagtttgc ttttgtactg gttttaagtc
                                                                   10380
ttacttttga aataattcaa tttatcttcg ctattggagc gacagacata acagatgtaa
                                                                   10440
ttacaaatac tgttggaggc tttcttggac tgaaattata tggtttaagc aataagcata
                                                                   10500
tgaatcaaaa aaaattagac agagttatta tttttgtagg tatacttttg ctcgtattat
                                                                   10560
tgctcgttta ccgtacccat ttaagaataa attacgtgta agatgtctaa atcaagcaat
                                                                   10620
ctgatctttc atacacataa agatattgaa tgaattggat tagatggaaa acgggatgtg
                                                                   10680
gggaaactcg cccgtaggtg tgaagtgagg ggaaaaccgg tgataaagta aaaagcttac
                                                                   10740
ctaacactat agtaacaaag aaagcccaat tatcaatttt agtgctgagg aattggtctc
                                                                   10800
tttaataaat ttccttaacg ttgtaaatcc gcattttcct gacggtaccc c
                                                                   10851
```

<210> 2 <211> 7160 <212> DNA <213> Enterococcus faecalis

<400> 2

tttaaacggt atatttcgga agaactgtgg aaacggctta tctctgtaaa atggggcatt 60 acagggcgtt gggtacaaaa gctctgcgat ggacgattaa aatccgaaaa gaaatcgctt 120 tgaaactaca gggaaactac agactgttat gttatcttct taaatggagg gatttttatg 180 tcgatacgaa ttctacttgt cgaggatgat gatcatatct gcaatacagt aagggcgttt 240 ttggctgaag caagatatga ggtggatgcc tgcacagatg gaaacgaagc acacaccaag 300 ttctatgaaa acacctatca actggttatt cttgatatta tgctgcccgg tatgaatggg 360 catgaacttc tacgtgaatt tcgggcgcaa aatgataccc ccattctgat gatgacagcc 420 480 ctgtcggatg acgaaaacca aatccgggcg tttgatgcag aggcagacga ctatgtaaca aagccattca agatgcggat tttactaaag cgggtggaag ccctgttacg gcgcagcggt 540 gcgctggcaa aggaatttcg tgtgggcagg ctgacacttc tgccggagga ttttagggta 600 etttgtgaeg gtaeggaget geeeetgaea egaaaagaat ttgaaateet tttgetgetg 660 gtgcagaaca aaggcagaac cttaacccat gaaatcattt tgtcccgcat atggggatat 720 gactttgacg gtgatggcag cacagtccac actcatatca aaaatctgcg ggcgaagctg 780 ccggaaaata tcatcaaaac catccgcggt gtaggttacc gattggagga atcattataa 840 tggaaagaaa agggattttc attaaggttt tttcctatac gatcattgtc ctgttactgc 900 ttgtcggtgt aacggcaaca ctgtttgcac agcaatttgt gtcttatttc agagcgatgg 960 aagcacagca aacagtaaaa tootatcago cattggtgga actgattcag aatagogata 1020 ggcttgatat gcaagaggtg gcagggctgt ttcactacaa taaccaatcc tttgagtttt 1080 atattgaaga taaagaggga agcgtactct atgccacacc gaatgccgat acatcaaata 1140 gtgttaggcc cgactttctt tatgtggtac atagagatga taatatttcg attgttgctc 1200 aaagcaaggc aggtgtggga ttgctttatc aagggctgac aattcgggga attgttatga 1260 ttgcgataat ggttgtattc agccttttat gcgcgtatat ctttgcgcgg caaatgacaa 1320 cgccgatcaa agccttagcg gacagtgcga ataaaatggc aaacctgaaa gaagtaccgc 1380 cgccgctgga gcgaaaggat gagcttggcg cactggctca cgacatgcat tccatgtata 1440 tcaggctgaa agaaaccatc gcaaggctgg aggatgaaat cgcaagggaa catgagttgg 1500 aggaaacaca gcgatatttc tttgcggcag cctctcatga gttaaaaacg cccatcgcgg 1560 ctgtaagcgt tctgttggag ggaatgcttg aaaatatcgg tgactacaaa gaccattcta 1620 1680 agtatctgcg cgaatgcatc aaaatgatgg acaggcaggg caaaaccatt tccgaaatac tggagettgt cageetgaac gatgggagaa tegtaeecat ageegaaceg etggaeatag 1740 ggcgcacggt tgccgagctg ctacccgatt ttcaaacctt ggcagaggca aacaaccagc 1800 ggttcgtcac agatattcca gccggacaaa ttgtcctgtc cgatccgaag ctgatccaaa 1860 aggegetate caatgteata ttgaatgegg tteagaacae geeceaggga ggtgaggtae 1920 ggatatggag tgagcctggg gctgaaaaat accgtctttc cgttttgaac atgggcgttc 1980 acattgatga tactgcactt tcaaagctgt tcatcccatt ctatcgcatt gatcaggcgc 2040 gaagcagaaa aagtgggcga agcggtttgg ggcttgccat cgtacaaaaa acgctggatg 2100 ccatgagcct ccaatatgcg ctggaaaaca cctcagatgg cgttttgttc tggctggatt 2160 taccgcccac atcaacacta taaatattta aaacttaaat gattttgacc gacaggtata 2220 2280 accetgeegg tetttttgtt tttegeeget acaggaaaac tacagattga etacagggaa agtacagata cgcttgccat aataacaatc gtaccagcca caaatcgtag ttttattgca 2340 2400 aaggaggcat tcaatcaaat ggaaaaaagc aactatcatt ccaatgtgaa tcatcacaaa cggcatatga aacaatctgg ggaaaaacgg gcttttctat gggcgttcat tatctcgttc 2460 acagtotgca cgotgttttt ggggtggaga ttggtttccg tattggaggc aacacagota 2520 2580 cegeceatee etgeaactea tacaggeage gggactggtg tageggagaa tecagaggaa aacactettg ccaccgccaa agaacaggga gatgaacagg aatggagcet gattttagtg 2640 2700 aacaggcaga accccatccc cgcccagtac gatgtggaac ttgagcagct gtcaaatggt gageggatag acatteggat ttetecetae etceaggatt tgtttgatge egeaagaget 2760

	gatggagttt	acccgattgt	cgcatccgga	taccggacaa	cagaaaaaca	gcaagaaatc	2820
	atggatgaaa	aagtcgccga	atacaaggcg	aaaggctaca	cctctgcaca	ggctaaagcg	2880
	gaagcagaaa	cttgggtggc	cgtgccggga	acaagcgagc	atcagcttgg	tcttgctgtg	2940
	gatatcaatg	cggatggaat	tcattcaacc	ggcaacgagg	tttacagatg	gctggatgaa	3000
	aacagctatc	gctttggttt	tattcgccgc	tacccgccag	acaagacaga	gataaccggt	3060
	gtgagcaacg	agccgtggca	ttaccgatat	gtcggcatcg	aagctgccac	aaagatatac	3120
	caccaagggc	tttgccttga	ggaatattta	aacacagaaa	aatgagaaaa	ggatataatg	3180
	ctatgaacag	aaaaagattg	acacagcgct	tcccgttcct	gcttccaatg	agacaagcgc	3240
	agagaaaaat	atgcttttat	gcgggaatga	gatttgacgg	ctgttgctat	gcacagacga	3300
	taggagaaaa	aacgcttccc	tatttgctct	ttgaaacgga	ttgtgcgtta	tacaaccaca	3360
-			taccaagaaa				3420
			ataaaaccgg				3480
			ccctataaag				3540
•			atgtgccaga				3600
			cagcgcagcg				3660
			gtggatgcaa				3720
			acctaccaaa				3780
			aaacagcctc				3840
			ggcgggattt				3900
			ataatagatt				3960
			agtgtggata				4020
			gcgagcagga				4080
			cgctgatcag				4140
			ttagcgtagg				4200
			gggtaaaata				4260
			agagaatggg				4320
			ctttgatgct				4380
			aacaaaattt				4440
			ttattggaac				4500
			gtgtgctagc				4560
			ttctaaaaaa				4620
							4680
			tgatcggcca				4740
			gcggggcgct				4800
			gtgcggcact				4860
			aagtgcttga				4920
			cccatacggc attgtcttaa	_			4980
	_		•		-	-	5040
			ggcggttgct				5100
			attaatactg				5160
			ctatgcaaga				5220
			gataggaaaa				5220
			gacgtggctt				
			tttgaattgt				5340
			gacaaatcac				5400
			atgattgaaa				5460
			ccggcacggt				5520
			gctgcgatag				5580
			ggctgtgagg				5640
			gatcaaatcc				5700
			ggctcagaga				5760
			gtgcaagaaa				5820
			gatcttttt				5880
	aggtcaatac	cctgcccggt	tttacatcgt	acagccgcta	tccacgcatg	gcggctgccg	5940

```
caggaatcac gcttcccgca ctaattgaca gcctgattac attggcgata gagaggtgac
                                                                      6000
ccgtatggaa aatggttttt tgtttttaga tgaaatgttg catggtgttc gttgggatgc
                                                                      6060
caagtacgct acatgggata acttcacggg aaaaccagtg gatgggtatg aggtgaatcg
                                                                      6120
catcatcggc acaaaggccg tggcgcttgc tctgcgcgaa gcacaaatcc atgcggcacg
                                                                      6180
cettggetac ggettgettt tatgggatgg atateggeea aaatetgegg tggaetgttt
                                                                      6240
cctgcgttgg gcggcgcagc cggaggacaa cctcacaaaa gaaaaatatt accccaatat
                                                                      6300
tgagcgagcc gagttgatta caaagggcta tgtggcctca caatccagcc atagccgtgg
                                                                      6360
aagcacaatt gatcttacgc tctaccactt ggatacaggg gaacttgttt caatgggaag
                                                                      6420
caacttcgat tttatggacg aacggtcgca ccatacagca aaagggatag ggaatgcaga
                                                                      6480
ggcacaaaat cgaagatgct tgcgtaaaat catggaaagc agcggatttc agtcctatcq
                                                                      6540
ctttgaatgg tggcactata agttgattga tgagccatac cccgatacct attttaattt
                                                                      6600
tgctgtttca taatgaaagt atttgatttt ctaattatgt ataagttggc tacaaattac
                                                                      6660
ttagtatttc atcagaccaa ttactctctt gtttacagaa aaattctgcg ctgatggaat
                                                                      6720
ctgctttatt atgcgggcga aaaatgaaat tgaccatatt ttttcagaac tttactctgt
                                                                      6780
accgaattgc ctgcaaaagc cttattttaa gctgaaagtt caggaattgc ttttgttttt
                                                                      6840
gtgtatgccc ctcgtgattt gtacacctat cttaattggc tttgcaattc tcattccgta
                                                                      6900
tctctgcttt aagaatttgg aaaaacgaag cattgtgaat cggctgcggg cagagcaaaa
                                                                      6960
agagaaccag cagaaacaag tegttettge tetgetgatt caeteggaac tgtttgatte
                                                                      7020
gggttttcgt tgaaggtcaa gtagctgctc tgtcaggaag tccagtgtgt tcagcagaat
                                                                      7080
ctgctgattg tcacggttgc atgactgaaa ttttcccatg aaacgctgga gttcttcatc
                                                                      7140
ctcaatagag tttgaagctt
                                                                      7160
```

<210> 3 <211> 1086 <212> DNA <213> Enterococcus casseliflavus

<400> 3

gtaagaatcg gaaaagcgga aggaagaaaa acatgaaaaa aatcgccatt atttttggag 60 gcaattcacc ggaatacacc gtttctttag cttcagcaac tagcgcaatc gaagcactcc 120 aatcatctcc ctatgactac gacctctctt tgatcgggat cgccccagat gctatggatt 180 ggtacttgta tacaggagaa ctggaaaaca tccgacaaga cacgtggttg ttggatacga 240 aacataaaca gaaaatàcag ccgctattcg aaggaaacgg cttttggcta agtgaagagc 300 agcaaacgtt ggtacctgat gttttatttc ccattatgca tggcaaatac ggggaagatg 360 gcagtatcca aggattgttt gaattgatga agctgcctta tgtaggctgc ggggtggcag 420 gttctgcctt atgtatgaac aaatggctgc tgcatcaagc tgcagcagcc attggcgtac 480 aaagtgctcc tacgattctc ttgacaaatc aagccaacca gcaagaacaa atcgaagctt 540 ttatccagac ccatggcttc ccagttttct ttaagcctaa tgaagcgggc tcctcaaaag 600 ggatcactaa agtcacctgc gttgaagaaa tcgcttctgc cttaaaagaa gcctttactt 660 attgttccgc agtgctccta caaaaaaata ttgccggtgt tgagatcggt tgcggtattt 720 780 tgggcaacga ctctttgact gtcggtgctt gtgacgccat ttcattagta gacggctttt tegattttga agaaaagtae eagetgatea gegeeaaaat cacegteeet gegeeattge 840 ctgaaacgat tgaaaccaag gtcaaagaac aagctcagct gctctatcgt agtcttggtc 900 ttaaaggtct tgctcgcatc gacttttttg tcacggagcg aggagaacta tacttgaatg 960 aaatcaatac tatgccgggc tttacgagtc actcccgcta tcctgccatg atggcagcgg 1020 teggettate etateaagaa etaetaeaaa aactgettgt ettageaaag gaggaagtea 1080 aatgag 1086

<210> 4 <211> 5781 <212> DNA

<400> 4

<400	J> 4					
		catatcgatt				60
		atgaaaaaat				120
		tgaaaaacga				180
		ttgaatccgt				240
		ttcagatctg				300
		aagtggagga				360
		cgtttaaccc				420
		acaagcagcc				480
		caatcagcaa				540
		cggagttttc				600
		aattatttga				660
		atatcgggcg				720
		ctgtgtgggg				780
		tatttacttt				840
		ctgattattg				900
		gccattttag				960
		acctttaagg				1020
		atcttccgcc				1080
		gatactttgg				1140
		gaaagaaaaa				1200
		gcagagcaaa				1260
		ccatcggtca				1320
atcagatttc	cgaggaactt	agggaaaaat	atttgtccat	atcattggat	aaggctgagc	1380
gtctggaaga	actgattaat	gagttttttg	aaattacgag	gtttaatctt	tcaaacatca	1440
cgcttgtgta	cagcaaaatc	aatctgacga	tgatgctgga	acagctgggg	tatgagttta	1500
		aatctgaaat				1560
tgtcctgcga	tgccaacaag	ctgcagcggg	tcttcgataa	tgtgctgaga	aatgccgtca	1620
gctactgcta	tgagaatacc	accattcggg	tgaaagccag	gcagaccgaa	gaccatgtac	1680
tcatcaaaat	cataaacgaa	ggggatacga	ttcctgggga	gagattggaa	agaatctttg	1740
agcagtttta	ccgcctggat	gtatctcgaa	gctcaagtac	cggcggggcc	ggtctggggc	1800
ttgccattgc	aaaagagatt	gtggaactgc	accatggaca	gatcactgcc	cacagcgaaa	1860
atggtatcac	cagttttgag	gttacattgc	ccgtcgtagg	aaaatcgtaa	gaaattccga	1920
		taaaagaacg				1980
ctttatatca	ggaggggcga	tttttttgct	ttcagaaagg	agttcagggt	aatgatggaa	2040
tatcaaaaca	ataatggaaa	ctatgacaaa	aggaatcgta	gaaaagccaa	aaaaagaaaa	2100
		atgtgtcaca				2160
ggagttgtgc	attttttagg	ggagagtaaa	gateceggee	ttttatccaa	agaaaacaca	2220
		gtggcttacc				2280
		ccaggctaac				2340
		cacaaatgag				2400
		taagatgatt				2460
		aggtgcggag				2520
		tacactgact				2580
		ctataccctt				2640
		gcaagcgatt				2700
		aaactcgaaa				2760
		tgaccttgct				2820
					cggaagagag	2880
					ccgtccggag	2940
gttatcggtt	tgaaaacagg	aaccagcagt	cttggcggcg	catgtattgt	ttctgcagcg	3000

gtgatggacg	gagaaaccta	tatctgtgta	gttatgggtt	ctacaaagga	aagcaggttt	3060
	ttgatatttt					3120
	ataatagaca					3180
	tcttatgagc					3240
	ggattagcta					3300
	attcttcttg					3360
	aaccatattg					3420
	tcgccgggaa					3480
	aagtcgattc					3540
	gaactgcggg					3600
	gagcgcctgg					3660
	gcagactatg					3720
	ccgttggcgg					3780
	gaggcgcttc					3840
	gcattaaaag					3900
						3960
	ttttaccatg					
	atgccgaatg					4020
	acggtcagaa					4080
	aattaaagtt				_	4140
	tgcgatggag					4200
	cacaaaatcc					4260
	gggggatccg					4320
	caaagggtat					4380
	ggaggatggc					4440
	tattcaaagc					4500
	gggtatcact					4560
	tttcgtatat					4620
	ggtatgcaag					4680
	gattttgatt					4740
	aaatgatctc					4800
	tcatcaggaa					4860
ttccagccgc	cttaccggat	gaggtaagag	aacagattca	ggaaacggca	atgaagattt	4920
accggatact	tggctgcaga	ggattggccc	gcattgacct	gtttttgcgg	gaggacggtt	4980
gcattgtgct	gaatgaagtg	aataccatgc	caggttttac	ttcctacagc	cgctatcccc	5040
gcatgatgac	agcagccggt	tttacgcttt	ctgaaatact	ggatcgcttg	attgaacttt	5100
cacttaggag	gtaactgtca	tgaaaaagaa	ctttgccttt	ttagatgaaa	tgattcccgg	5160
gatccgatgg	gatgccaaat	atgccacctg	ggacaatttc	accgggaaac	cggtagacgg	5220
atacatggta	aaccgtgtta	tgggaacgaa	ggagctggga	gttgctttgc	gtaaggctca	5280
gaagatggcg	gagaagctag	gatatggttt	gctcttatgg	gacggctatc	gcccccagtg	5340
cgcagtgaat	tgttttctga	attgggcttc	ccaaccggaa	gacaatctga	cgaaaaagcg	5400
ttactatcca	aatatcaaaa	ggaatgagat	ggttgcgaag	gggtatgtgg	cctcacaatc	5460
cagccacagc	cgtggaagta	cggttgacct	tacaatttt	catttgaata	gcggtatgct	5520
tgttcctatg	ggtggagatt	ttgactttat	ggatgaacgg	tcacaccatg	ccgcaagcgg	5580
	gaagaatcaa					5640
atttgaagcc	tatcgttatg	aatggtggca	ttacgtcttg	gcggacgagc	catacccgga	5700
tacatatttt	gatttttgca	ttgcctagtg	agagcctgaa	gaaatgaaaa	atgtaagatt	5760
	gcggcatgag					5781

<211> 27

<212> DNA

<213> Enterococcus faecium	
<400> 5	
ggtggcgcgg gacttggatg gcgattg	27
55.55.55.55.56.50.50.50.50.50.50.50.50.50.50.50.50.50.	21
<210> 6	
<211> 30	
<212> DNA	
<213> Enterococcus faecium	
<400> 6	
ggcgcggatg attatataac gaagcccttt	30
<210> 7	
<211> 18	
<212> DNA	
<213> Enterococcus faecium	
<400> 7	
cgagccggaa aaaggctc	18
<210> 8 <211> 20	
<212> DNA <213> Enterococcus faecium	
<213> Enterococcus faecium	
<400> 8	
ggctgcgata ttcaaagctc	20
<210> 9	
<211> 27	
<212> DNA	
<213> Enterococcus faecium	
<400> 9	
attactgttt atggatgtga gcaggat	27
<210> 10	
<211> 26	
<212> DNA	
<213> Enterococcus faecium	
<400> 10	
gtggcttcaa aatcaagcca tagccg	26
grandram addaagood bagoog	20
<210> 11	
<211> 18	
<212> DNA	
<213> Enterococcus casseliflavus	
<400> 11	
cgagccggaa aaaggctc	18
	10

```
<210> 12
      <211> 20
      <212> DNA
      <213> Enterococcus casseliflavus
      <400> 12
ggctgcgata ttcaaagctc
                                                                         20
      <210> 13
      <211> 20
      <212> DNA
      <213> Enterococcus faecium
      <400> 13
ggctgcgata ttcaaagctc
                                                                         20
      <210> 14
      <211> 30
      <212> DNA
      <213> Enterococcus faecium
      <400> 14
cuacuacuac uacgaattca agaacactgg
                                                                         30
      <210> 15
      <211> 36
      <212> DNA
      <213> Enterococcus faecium
      <400> 15
caucaucauc auccaaccct ttctgtgaaa ggcacc
                                                                         36
      <210> 16
      <211> 38
      <212> DNA
      <213> Enterococcus faecium
      <400> 16
cuacuacuac uactogaggo ttatcaccoc tttaacgo
                                                                         38
      <210> 17
      <211> 32
      <212> DNA
      <213> Enterococcus faecium
      <400> 17
caucaucauc auggagacag gagcatgaat ag
                                                                         32
      <210> 18
      <211> 696
      <212> DNA
      <213> Enterococcus faecium
```

```
<400> 18
atgagcgata aaatacttat tgtggatgat gaacatgaaa ttgccgattt ggttgaatta
                                                                        60
tacttaaaaa acgagaatta tacggttttc aaatactata ccgccaaaga agcattggaa
                                                                       120
tgtatagaca agtctgagat tgaccttgcc atattggaca tcatgcttcc cggcacaagc
                                                                       180
ggccttacta tctgtcaaaa aataagggac aagcacacct atccgattat catgctgacc
                                                                       240
gggaaagata cagaggtaga taaaattaca gggttaacaa tcggcgcgga tgattatata
                                                                       300
acgaagccct ttcgcccact ggagttaatt gctcgggtaa aggcccagtt gcgccgatac
                                                                       360
aaaaaattca gtggagtaaa ggagcagaac gaaaatgtta tcgtccactc cggccttgtc
                                                                       420
attaatgtta acacccatga gtgttatctg aacgagaagc agttatccct tactcccacc
                                                                       480
gagttttcaa tactgcgaat cctctgtgaa aacaagggga atgtggttag ctccgagctg
                                                                       540
ctatttcatg agatatgggg cgacgaatat ttcagcaaga gcaacaacac catcaccgtg
                                                                       600
catatccggc atttgcgcga aaaaatgaac gacaccattg ataatccgaa atatataaaa
                                                                       660
acggtatggg gggttggtta taaaattgaa aaataa
                                                                       696
      <210> 19
      <211> 1155
      <212> DNA
      <213> Enterococcus faecium
      <400> 19
ttggttataa aattgaaaaa taaaaaaaac gactattcca aactagaacg aaaactttac
                                                                        60
atgtatatcg ttgcaattgt tgtggtagca attgtattcg tgttgtatat tcgttcaatg
                                                                       120
atccgaggga aacttgggga ttggatctta agtattttgg aaaacaaata tgacttaaat
                                                                       180
cacctggacg cgatgaaatt atatcaatat tccatacgga acaatataga tatctttatt
                                                                       240
tatgtggcga ttgtcattag tattcttatt ctatgtcgcg tcatgctttc aaaattcgca
                                                                       300
aaatactttg acgagataaa taccggcatt gatgtactta ttcagaacga agataaacaa
                                                                       360
attgagettt etgeggaaat ggatgttatg gaacaaaage teaacacatt aaaaeggaet
                                                                       420
ctggaaaagc gagagcagga tgcaaagctg gccgaacaaa gaaaaaatga cgttgttatg
                                                                       480
tacttggcgc acgatattaa aacgcccctt acatccatta tcggttattt gagcctgctt
                                                                       540
gacgaggete cagacatgee ggtagateaa aaggeaaagt atgtgeatat caegttggae
                                                                       600
aaagcgtatc gactcgaaca gctaatcgac gagttttttg agattacacg gtataaccta
                                                                       660
caaacgataa cgctaacaaa aacgcacata gacctatact atatgctggt gcagatgacc
                                                                       720
gatgaatttt atcctcagct ttccgcacat ggaaaacagg cggttattca cgcccccgag
                                                                       780
                                                                       840
gatctgaccg tgtccggcga ccctgataaa ctcgcgagag tctttaacaa cattttgaaa
                                                                       900
aacgccgctg catacagtga ggataacagc atcattgaca ttaccgcggg cctctccggg
                                                                       960
gatgtggtgt caatcgaatt caagaacact ggaagcatcc caaaagataa gctagctgcc
atatttgaaa agttctatag gctggacaat gctcgttctt ccgatacggg tggcgcggga
                                                                      1020
cttggattgg cgattgcaaa agaaattatt gttcagcatg gagggcagat ttacgcggaa
                                                                      1080
agcaatgata actatacgac gtttagggta gagcttccag cgatgccaga cttggttgat
                                                                      1140
aaaaggaggt cctaa
                                                                      1155
      <210> 20
      <211> 969
      <212> DNA
      <213> Enterococcus faecium
```

```
<400> 20
atgaataaca tcggcattac tgtttatgga tgtgagcagg atgaggcaga tgcattccat 60
gctctttcgc ctcgctttgg cgttatggca acgataatta acgccaacgt gtcggaatcc 120
aacgccaaat ccgcgccttt caatcaatgt atcagtgtgg gacataaatc agagatttcc 180
gcctctattc ttcttgcgct gaagagagcc ggtgtgaaat atatttctac ccgaagcatc 240
ggctgcaatc atatagatac aactgctgct aagagaatgg gcatcactgt cgacaatgtg 300
gcgtactcgc cggatagcgt tgccgattat actatgatgc taattcttat ggcagtacgc 360
```

```
aacgtaaaat cgattgtgcg ctctgtggaa aaacatgatt tcaggttgga cagcgaccgt
                                                                       420
ggcaaggtac tcagcgacat gacagttggt gtggtgggaa cgggccagat aggcaaaqcq
                                                                       480
gttattgagc ggctgcgagg atttggatgt aaagtgttgg cttatagtcg cagccgaagt
                                                                       540
atagaggtaa actatgtacc gtttgatgag ttgctgcaaa atagcgatat cgttacgctt
                                                                       600
catgtgccgc tcaatacgga tacgcactat attatcagcc acgaacaaat acagagaatg
                                                                       660
aagcaaggag catttettat caatactggg egeggteeae ttgtagatae etatgagttg
                                                                       720
gttaaagcat tagaaaacgg gaaactgggc ggtgccgcat tggatgtatt ggaaggagag
                                                                       780
gaagagtttt tctactctga ttgcacccaa aaaccaattg ataatcaatt tttacttaaa
                                                                       840
cttcaaagaa tgcctaacgt gataatcaca ccgcatacgg cctattatac cgagcaagcg
                                                                       900
ttgcgtgata ccgttgaaaa aaccattaaa aactgtttgg attttgaaag gagacaggag
                                                                       960
catgaatag
                                                                       969
      <210> 21
      <211> 1032
      <212> DNA
      <213> Enterococcus faecium
      <400> 21
atgaatagaa taaaagttgc aatactgttt gggggttgct cagaggagca tgacgtatcg
                                                                        60
gtaaaatctg caatagagat agccgctaac attaataaag aaaaatacga gccgttatac
                                                                       120
attggaatta cgaaatctgg tgtatggaaa atgtgcgaaa aaccttgcgc ggaatgggaa
                                                                       180
aacgacaatt gctattcagc tgtactctcg ccggataaaa aaatgcacgg attacttgtt
                                                                       240
aaaaagaacc atgaatatga aatcaaccat gttgatgtag cattttcagc tttgcatggc
                                                                       300
aagtcaggtg aagatggatc catacaaggt ctgtttgaat tgtccggtat cccttttgta
                                                                       360
ggctgcgata ttcaaagctc agcaatttgt atggacaaat cgttgacata catcgttgcg
                                                                       420
aaaaatgctg ggatagctac tcccgccttt tgggttatta ataaagatga taggccggtg
                                                                       480
gcagetacgt ttacetatee tgtttttgtt aageeggege gttcaggete ateetteggt
                                                                       540
gtgaaaaaag tcaatagcgc ggacgaattg gactacgcaa ttgaatcggc aagacaatat
                                                                       600
gacagcaaaa tottaattga gcaggctgtt togggctgtg aggtcggttg tgcggtattg
                                                                       660
ggaaacagtg ccgcgttagt tgttggcgag gtggaccaaa tcaggctgca gtacggaatc
                                                                       720
                                                                       780
tttcgtattc atcaggaagt cgagccggaa aaaggctctg aaaacgcagt tataaccgtt
cccgcagacc tttcagcaga ggagcgagga cggatacagg aaacggcaaa aaaaatatat
                                                                       840
aaagcgctcg gctgtagagg tctagcccgt gtggatatgt ttttacaaga taacggccgc
                                                                       900
attgtactga acgaagtcaa tactctgccc ggtttcacgt catacagtcg ttatccccgt
                                                                       960
atgatggccg ctgcaggtat tgcacttccc gaactgattg accgcttgat cgtattagcg
                                                                      1020
                                                                      1032
ttaaaggggt ga
      <210> 22
      <211> 609
      <212> DNA
      <213> Enterococcus faecium
      <400> 22
atggaaatag gatttacttt tttagatgaa atagtacacg gtgttcgttg ggacgctaaa
                                                                        60
tatgccactt gggataattt caccggaaaa ccggttgacg gttatgaagt aaatcgcatt
                                                                       120
gtagggacat acgagttggc tgaatcgctt ttgaaggcaa aagaactggc tgctacccaa
                                                                       180
gggtacggat tgcttctatg ggacggttac cgtcctaagc gtgctgtaaa ctgttttatg
                                                                       240
                                                                       300
caatgggctg cacagccgga aaataacctg acaaaggaaa gttattatcc caatattgac
cgaactgaga tgatttcaaa aggatacgtg gcttcaaaat caagccatag ccgcggcagt
                                                                       360
gccattgatc ttacgcttta tcgattagac acgggtgagc ttgtaccaat ggggagccga
                                                                       420
                                                                       480
tttgatttta tggatgaacg ctctcatcat gcggcaaatg gaatatcatg caatgaagcg
                                                                       540
caaaatcgca gacgtttgcg ctccatcatg gaaaacagtg ggtttgaagc atatagcctc
                                                                       600
gaatggtggc actatgtatt aagagacgaa ccatacccca atagctattt tgatttcccc
```

gttaaataa 609 <210> 23 <211> 912 <212> DNA <213> Enterococcus faecium <400> 23 atgaagaagt tgttttttt attgttattg ttattcttaa tatacttagg ttatgactac 60 gttaatgaag cactgttttc tcaggaaaaa gtcgaatttc aaaattatga tcaaaatccc 120 aaagaacatt tagaaaatag tgggacttct gaaaataccc aagagaaaac aattacagaa 180 gaacaggttt atcaaggaaa tctgctatta atcaatagta aatatcctgt tcgccaagaa 240 300 agtgtgaagt cagatatcgt gaatttatct aaacatgacg aattaataaa tggatacggg ttgcttgata gtaatattta tatgtcaaaa gaaatagcac aaaaattttc agagatggtc 360 aatgatgctg taaagggtgg cgttagtcat tttattatta atagtggcta tcgagacttt 420 gatgagcaaa gtgtgcttta ccaagaaatg ggggctgagt atgccttacc agcaggttat 480 agtgagcata attcaggttt atcactagat gtaggatcaa gcttgacgaa aatggaacga 540 gcccctgaag gaaagtggat agaagaaaat gcttggaaat acgggttcat tttacgttat 600 ccagaggaca aaacagagtt aacaggaatt caatatgaac catggcatat tcgctatgtt 660 ggtttaccac atagtgcgat tatgaaagaa aagaatttcg ttctcgagga atatatggat 720 tacctaaaag aagaaaaac catttctgtt agtgtaaatg gggaaaaata tgagatcttt 780 tattatcctg ttactaaaaa taccaccatt catgtgccga ctaatcttcg ttatgagata 840 tcaggaaaca atatagacgg tgtaattgtg acagtgtttc ccggatcaac acatactaat 900 tcaaggaggt aa 912 <210> 24 <211> 486 <212> DNA <213> Enterococcus faecium <400> 24 ttgggaaaaa tattatctag aggattgcta gctttatatt tagtgacact aatctggtta 60 gtgttattca aattacaata caatatttta tcagtattta attatcatca aagaagtctt 120 aacttgactc catttactgc tactgggaat ttcagagaga tgatagataa tgttataatc 180 tttattccat ttggcttgct tttgaatgtc aattttaaag aaatcggatt tttacctaag 240 tttgcttttg tactggtttt aagtcttact tttgaaataa ttcaatttat cttcgctatt 300 ggagcgacag acataacaga tgtaattaca aatactgttg gaggctttct tggactgaaa 360 ttatatggtt taagcaataa gcatatgaat caaaaaaaat tagacagagt tattattttt 420 gtaggtatac ttttgctcgt attattgctc gtttaccgta cccatttaag aataaattac 480 gtgtaa 486 <210> 25 <211> 19 <212> DNA <213> Enterococcus faecium <400> 25 19 cgaataccgc aagcgacag <210> 26 <211> 663 <212> DNA

<213> Enterococcus faecium

```
<400> 26
atgtcgatac gaattctact tgtcgaggat gatgatcata tctgcaatac agtaagggcg
                                                                        60
tttttggctg aagcaagata tgaggtggat gcctgcacag atggaaacga agcacacac
                                                                       120
aagttctatg aaaacaccta tcaactggtt attcttgata ttatgctgcc cggtatgaat
                                                                       180
gggcatgaac ttctacgtga atttcgggcg caaaatgata cccccattct gatgatgaca
                                                                       240
gccctgtcgg atgacgaaaa ccaaatccgg gcgtttgatg cagaggcaga cgactatgta
                                                                       300
acaaagccat tcaagatgcg gattttacta aagcgggtgg aagccctgtt acggcgcagc
                                                                       360
ggtgcgctgg caaaggaatt tcgtgtgggc aggctgacac ttctgccgga ggattttagg
                                                                       420
gtactttgtg acggtacgga gctgcccctg acacgaaaag aatttgaaat ccttttgctg
                                                                       480
ctggtgcaga acaaaggcag aaccttaacc catgaaatca ttttgtcccg catatgggga
                                                                       540
tatgactttg acggtgatgg cagcacagtc cacactcata tcaaaaatct gcgggcgaag
                                                                       600
ctgccggaaa atatcatcaa aaccatccgc ggtgtaggtt accgattgga ggaatcatta
                                                                       660
taa
                                                                       663
      <210> 27
      <211> 1344
      <212> DNA
      <213> Enterococcus faecium
      <400> 27
atggaaagaa aagggatttt cattaaggtt ttttcctata cgatcattgt cctgttactg
                                                                        60
cttgtcggtg taacggcaac actgtttgca cagcaatttg tgtcttattt cagagcgatg
                                                                       120
gaagcacagc aaacagtaaa atcctatcag ccattggtgg aactgattca gaatagcgat
                                                                       180
aggettgata tgcaagaggt ggcagggetg tttcactaca ataaccaatc ctttgagttt
                                                                       240
tatattgaag ataaagaggg aagcgtactc tatgccacac cgaatgccga tacatcaaat
                                                                       300
agtgttaggc ccgactttct ttatgtggta catagagatg ataatatttc gattgttgct
                                                                       360
caaagcaagg caggtgtggg attgctttat caagggctga caattcgggg aattgttatg
                                                                       420
attgcgataa tggttgtatt cagcctttta tgcgcgtata tctttgcgcg gcaaatgaca
                                                                       480
acgccgatca aagccttagc ggacagtgcg aataaaatgg caaacctgaa agaagtaccg
                                                                       540
ccgccgctgg agcgaaagga tgagcttggc gcactggctc acgacatgca ttccatgtat
                                                                       600
atcaggctga aagaaaccat cgcaaggctg gaggatgaaa tcgcaaggga acatgagttg
                                                                       660
gaggaaacac agcgatattt ctttgcggca gcctctcatg agttaaaaac gcccatcgcg
                                                                       720
gctgtaagcg ttctgttgga gggaatgctt gaaaatatcg gtgactacaa agaccattct
                                                                       780
aagtatctgc gcgaatgcat caaaatgatg gacaggcagg gcaaaaccat ttccgaaata
                                                                       840
ctggagettg teageetgaa egatgggaga ategtaceca tageegaace getggacata
                                                                       900
gggcgcacgg ttgccgagct gctacccgat tttcaaacct tggcagaggc aaacaaccag
                                                                       960
cggttcgtca cagatattcc agccggacaa attgtcctgt ccgatccgaa gctgatccaa
                                                                      1020
aaggegetat ecaatgteat attgaatgeg gtteagaaca egeeceaggg aggtgaggta
                                                                      1080
cggatatgga gtgagcctgg ggctgaaaaa taccgtcttt ccgttttgaa catgggcgtt
                                                                      1140
cacattgatg atactgcact ttcaaagctg ttcatcccat tctatcgcat tgatcaggcg
                                                                      1200
cgaagcagaa aaagtgggcg aagcggtttg gggcttgcca tcgtacaaaa aacgctggat
                                                                      1260
gccatgagcc tccaatatgc gctggaaaac acctcagatg gcgttttgtt ctggctggat
                                                                      1320
ttaccgccca catcaacact ataa
                                                                      1344
      <210> 28
      <211> 807
      <212> DNA
      <213> Enterococcus faecium
      <400> 28
atggaaaaaa gcaactatca ttccaatgtg aatcatcaca aacggcatat gaaacaatct
                                                                        60
ggggaaaaac gggcttttct atgggcgttc attatctcgt tcacagtctg cacgctgttt
                                                                       120
```

```
ttggggtgga gattggtttc cgtattggag gcaacacagc taccgcccat ccctgcaact
                                                                       180
catacaggca gcgggactgg tgtagcggag aatccagagg aaaacactct tgccaccgcc
                                                                       240
aaagaacagg gagatgaaca ggaatggagc ctgattttag tgaacaggca gaaccccatc
                                                                       300
cccgcccagt acgatgtgga acttgagcag ctgtcaaatg gtgagcggat agacattcgg
                                                                       360
atttctccct acctccagga tttgtttgat gccgcaagag ctgatggagt ttacccgatt
                                                                       420
gtcgcatccg gataccggac aacagaaaaa cagcaagaaa tcatggatga aaaagtcgcc
                                                                       480
gaatacaagg cgaaaggcta cacctctgca caggctaaag cggaagcaga aacttgggtg
                                                                       540
gccgtgccgg gaacaagcga gcatcagctt ggtcttgctg tggatatcaa tgcggatgga
                                                                       600
attcattcaa ccggcaacga ggtttacaga tggctggatg aaaacagcta tcgctttggt
                                                                       660
tttattcgcc gctacccgcc agacaagaca gagataaccg gtgtgagcaa cgagccgtgg
                                                                       720
cattaccgat atgtcggcat cgaagctgcc acaaagatat accaccaagg gctttgcctt
                                                                       780
gaggaatatt taaacacaga aaaatga
                                                                       807
      <210> 29
      <211> 972
      <212> DNA
      <213> Enterococcus faecium
      <400> 29
atgagaaaaa gtatgggcat tactgttttt ggatgcgagc aggatgaggc aaatgctttc
                                                                        60
egeacettat caccagattt teatattate cetacgetga teagtgatge gatateggea
                                                                       120
gacaacgcaa aattggccgc tggcaatcaa tgcattagcg taggccataa gtccgaggtt
                                                                       180
teegaggega caattettge getgagaaag gteggggtaa aatacattte taccegeage
                                                                       240
atcggctgca atcacattga tacgactgcc gccgagagaa tggggatctc ggttggcaca
                                                                       300
gttgcgtatt cgccggacag cgttgcggat tatgctttga tgctgatgct gatggccata
                                                                       360
eggggtgeaa agteeaceat acaegeegtg gegeaacaaa attteagaet ggattgtgte
                                                                       420
cgggggaaag agctgcggga tatgactgtg ggagttattg gaaccggcca tatagggcaa
                                                                       480
gcggtcgtca aaaggctgcg gggatttgga tgccgtgtgc tagcctatga taacagccga
                                                                       540
aaaattgagg cagattatgt ccagcttgat gagcttctaa aaaacagcga tattgttacg
                                                                       600
etccatgtge egetttgtge ggataecege catetgateg gecagagega aateggagag
                                                                       660
atgaagcaag gegeattttt aateaacaet gggegegggg egettgtega taeegggteg
                                                                       720
ctggtggagg cactgggaag cggaaagctg ggcggtgcgg cactggatgt gttggagggc
                                                                       780
gaggatcagt ttgtttatac cgactgctcg cagaaagtgc ttgaccatcc ctttttgtcg
                                                                       840
cageteetaa ggatgeeaaa tgtgateate acaeeecata eggegtaeta caeegagegt
                                                                       900
gtgctgcgag ataccacaga aaaaacaatc aggaattgtc ttaactttga aaggagttta
                                                                       960
cagcatgaat aa
                                                                       972
      <210> 30
      <211> 1029
      <212> DNA
      <213> Enterococcus faecium
      <400> 30
                                                                        60
atgaataaaa taaaagtege aattatette ggeggttget eggaggaaca tgatgtgeg
                                                                       120
gtaaaatccg caatagaaat tgctgcgaac attaatactg aaaaattcga tccgcactac
                                                                       180
atoggaatta caaaaaacgg cgtatggaag ctatgcaaga agccatgtac ggaatgggaa
                                                                       240
geogatagte teccegecat attetecceg gataggaaaa egeatggtet gettgteatg
aaagaaagag aatacgaaac teggegtatt gaegtggett teeeggtttt geatggeaaa
                                                                       300
                                                                       360
tgcggggagg atggtgcgat acagggtctg tttgaattgt ctggtatccc ctatgtaggc
tgcgatattc aaagctccgc agcttgcatg gacaaatcac tggcctacat tcttacaaaa
                                                                       420
aatgcgggca tcgccgtccc cgaatttcaa atgattgaaa aaggtgacaa accggaggcg
                                                                       480
aggacgetta cetaccetgt etttgtgaag eeggeaeggt eaggttegte etttggegta
                                                                       540
accaaagtaa acagtacgga agaactaaac gctgcgatag aagcagcagg acaatatgat
                                                                       600
```

```
ggaaaaatct taattgagca agcgatttcg ggctgtgagg tcggctgcgc ggtcatggga
                                                                       660
aacgaggatg atttgattgt cggcgaagtg gatcaaatcc ggttgagcca cggtatcttc
                                                                       720
cgcatccatc aggaaaacga gccggaaaaa ggctcagaga atgcgatgat tatcgttcca
                                                                       780
gcagacattc cggtcgagga acgaaatcgg gtgcaagaaa cggcaaagaa agtatatcgq
                                                                       840
gtgcttggat gcagagggct tgctcgtgtt gatctttttt tgcaggagga tggcggcatc
                                                                       900
gttctaaacg aggtcaatac cctgcccggt tttacatcgt acagccgcta tccacgcatg
                                                                       960
geggetgeeg caggaateae getteeegea etaattgaea geetgattae attggegata
                                                                      1020
gagaggtga
                                                                      1029
      <210> 31
      <211> 609
      <212> DNA
      <213> Enterococcus faecium
      <400> 31
atggaaaatg gttttttgtt tttagatgaa atgttgcatg gtgttcgttg ggatgccaag
                                                                        60
tacgctacat gggataactt cacgggaaaa ccagtggatg ggtatgaggt gaatcgcatc
                                                                       120
ateggeacaa aggeegtgge gettgetetg egegaageac aaateeatge ggeacgeett
                                                                       180
ggctacggct tgcttttatg ggatggatat cggccaaaat ctgcggtgga ctgtttcctq
                                                                       240
cgttgggcgg cgcagccgga ggacaacctc acaaaagaaa aatattaccc caatattgag
                                                                       300
cgagccgagt tgattacaaa gggctatgtg gcctcacaat ccagccatag ccgtggaagc
                                                                       360
acaattgatc ttacgctcta ccacttggat acaggggaac ttgtttcaat gggaagcaac
                                                                       420
ttcgatttta tggacgaacg gtcgcaccat acagcaaaag ggatagggaa tgcagaggca
                                                                       480
caaaatcgaa gatgcttgcg taaaatcatg gaaagcagcg gatttcagtc ctatcgcttt
                                                                       540
gaatggtggc actataagtt gattgatgag ccataccccg atacctattt taattttgct
                                                                       600
gtttcataa
                                                                       609
      <210> 32
      <211> 828
      <212> DNA
      <213> Enterococcus faecium
      <400> 32
atgaacagaa aaagattgac acagcgcttc ccgttcctgc ttccaatgag acaagcgcag
                                                                        60
agaaaaatat gcttttatgc gggaatgaga tttgacggct gttgctatgc acagacgata
                                                                       120
ggagaaaaaa cgcttcccta tttgctcttt gaaacggatt gtgcgttata caaccacaat
                                                                       180
accggatttg acatgatata ccaagaaaac aaggtgttca acttaaagct ggcggcaaag
                                                                       240
accttaaacg gcctattgat aaaaccgggg gaaacctttt ctttctggcg gctggtacgc
                                                                       300
catgcggaca aagatacccc ctataaagac ggccttacgg tggccaatgg taagctcacc
                                                                       360
accatgtcgg gcggcggtat gtgccagatg agcaatttac tattttgggt gttcctgcat
                                                                       420
acgccattga caattatcca gcgcagcggt cacgtagtaa aggagtttcc agagccaaac
                                                                       480
agtgacgaga tcaaaggggt ggatgcaacc atctcagagg gctggattga tttaaaagtg
                                                                       540
cgaaacgata ccgactgcac ctaccaaata tgggtgaccc tagatgatga gaaaatcatc
                                                                       600
ggtcaggtgt tcgccgacaa acagcctcaa gcattataca aaattgcaaa cggcagtatt
                                                                       660
cagtatgtcc gtgaaagtgg cgggatttat gaatatgcca aggttgaacg gatgcaagtt
                                                                       720
                                                                       780
gccttaggta ccggggaaat aatagattgc aagctgcttt atacaaacaa atgcaaaatc
tgctatcccc tcccggaaag tgtggatatt caggaggcga accaatga
                                                                       828
      <210> 33
      <211> 1053
```

<212> DNA

<213> Enterococcus casseliflavus

<400> 33			
atgaaaaaa tcgccattat ttttggaggc a	aattcaccqq aatacaccqt	ttctttagct	60
tcagcaacta gcgcaatcga agcactccaa t			120
atcgggatcg ccccagatgc tatggattgg t			180
cgacaagaca cgtggttgtt ggatacgaaa c			240
ggaaacggct tttggctaag tgaagagcag o			300
attatgcatg gcaaatacgg ggaagatggc a			360
ctgccttatg taggctgcgg ggtggcaggt t			420
catcaagctg cagcagccat tggcgtacaa a			480
gccaaccagc aagaacaaat cgaagctttt a			540
aagcctaatg aagcgggctc ctcaaaaggg a	atcactaaag tcacctgcgt	tgaagaaatc	600
gcttctgcct taaaagaagc ctttacttat t	tgttccgcag tgctcctaca	aaaaaatatt	660
gccggtgttg agatcggttg cggtattttg g	ggcaacgact ctttgactgt	cggtgcttgt	720
gacgccattt cattagtaga cggctttttc g	gattttgaag aaaagtacca	gctgatcagc	780
gccaaaatca ccgtccctgc gccattgcct g	gaaacgattg aaaccaaggt	caaagaacaa	840
gctcagctgc tctatcgtag tcttggtctt a	aaaggtcttg ctcgcatcga	cttttttgtc	900
acggagcgag gagaactata cttgaatgaa a	atcaatacta tgccgggctt	tacgagtcac	960
tecegetate etgecatgat ggeageggte g	ggcttatcct atcaagaact	actacaaaaa	1020
ctgcttgtct tagcaaagga ggaagtcaaa t	tga		1053
<211> 699 <212> DNA <213> Enterococcus faecium			
<400> 34			
atgaatgaaa aaatcttagt ggttgatgat g	gaaaaagaat tggccgactt	agttgaagta	60
tatctgaaaa acgatggata taccgtttat a			120
tgtattgaat ccgtggaact ggatttagcc a	atattggata tcatgcttcc	ggatgtagac	180
gggtttcaga tctgccagaa aatccgggaa a	aagttttact tccctgttat	catgctgaca	240
gcaaaagtgg aggacgggga taaaatcatg g	ggactgtccg tggcggatga	ttatattaca	300
aagccgttta acccgctgga agtggttgcg a	agagtaaagg cgcagctgcg	gcagtacatg	360
cggtacaagc agcccagctt aaagcaggag g	getgaatgea eagaataega	tatcagaggg	420
atgacaatca gcaagagcag ccataagtgt a			480
ccaacggagt tttcgattct ttggtatctg t			540
gaggaattat ttgaggcagt atggggtgaa o			600
gcgcatatcg ggcggctccg ggagaaaatg a		gaaatttata	660
aaaactgtgt ggggagtggg atataccatt g	gaaaaatag		699
<210> 35			
<211> 1146			
<211> 1140 <212> DNA			
<213> Enterococcus faecium			
(213) Entertococcus Tuccium			
<400> 35			
ttgaaaaata gaaataaaac cagtcatgaa g			60
tccgttaaaa tactgcttat gatggtatat t			120
tttatcttaa aagataattt tgcaaatgtc g			180
catgatcggg atgaggcggt ggctgtttat o			240
cttttcctga tagcggttat gggcgtgttt t			300
atttcaaaat attttaagga gatcaaccgg g			360
aacgatattg ggctgcctcc ggagttggct t	ccyaccyaaa gaaaaatcaa	LLCCatacgg	420

cataccetga egaaaeggaa aaeggaeget gagettgeag ageaaaggaa aaaegatett 480

```
gtcatgtatc tggcccatga cctgaagacc ccgcttccat cggtcatagg atatttgaac
                                                                       540
ctgttaaggg atgagaatca gatttccgag gaacttaggg aaaaatattt gtccatatca
                                                                       600
ttggataagg ctgagcgtct ggaagaactg attaatgagt tttttgaaat tacgaggttt
                                                                       660
aatctttcaa acatcacgct tgtgtacagc aaaatcaatc tgacgatgat gctggaacag
                                                                       720
ctggggtatg agtttaagcc gatgctggcc gggaaaaatc tgaaatgtga atttgatgtt
                                                                       780
cagecagaca tgatgetgte etgegatgee aacaagetge agegggtett egataatgtg
                                                                       840
ctgagaaatg ccgtcagcta ctgctatgag aataccacca ttcgggtgaa agccaggcag
                                                                       900
accgaagacc atgtactcat caaaatcata aacgaagggg atacgattcc tggggagaga
                                                                       960
ttggaaagaa tetttgagea gttttacege etggatgtat etegaagete aagtacegge
                                                                      1020
                                                                      1080
ggggccggtc tggggcttgc cattgcaaaa gagattgtgg aactgcacca tggacagatc
actgcccaca gcgaaaatgg tatcaccagt tttgaggtta cattgcccgt cgtaggaaaa
                                                                      1140
tcgtaa
                                                                      1146
      <210> 36
      <211> 1071
      <212> DNA
      <213> Enterococcus faecium
      <400> 36
atgatggaat atcaaaacaa taatggaaac tatgacaaaa ggaatcgtag aaaagccaaa
                                                                        60
aaaagaaaat tgctttttta cagggctgca tgtgtcacac tttgtttgct cattgtttct
                                                                       120
gtaatctttg gagttgtgca ttttttaggg gagagtaaag atcccggcct tttatccaaa
                                                                       180
gaaaacacaa aaacagacaa gaactattcg tggcttaccg acgatcagaa tgaggcagta
                                                                       240
ccctcagttc cagagccagc catatccgac caggctaaca aaatttcggt aaatatcaca
                                                                       300
geggeaaacg ccattgtaat gaataaagac acaaatgagg tattgtacca gaaaaaaagc
                                                                       360
                                                                       420
acagccaaaa ttgcgccggc cagcactgct aagatgatta tggctttgac agcacttgac
tattgttccc cggaggatga aatgaaagta ggtgcggaga ttggaatgat tcaaagcgat
                                                                       480
tegteaaceg catggettat gaagggtgat acactgactg teagacaget cetgattgee
                                                                       540
cttatgcttc cgtccggcaa tgatgcagcc tataccettg cagtcaatac cggaaaggct
                                                                       600
attgcaggtg ataacagcct gaccagtcag caagcgattg aagtattcat ggataaggta
                                                                       660
aatgaaaaag ccgtggccct tggcgccaca aactcgaaat ttgtagctcc ggatggatat
                                                                       720
gatgccgaag ggcagtatac tacagcttat gaccttgcta tcattgcaaa agcatgtttg
                                                                       780
                                                                       840
gacaatccta tcatttcgga gattgtagcg agttattcat cctatgaaaa atggtcaaac
ggaagagagg tcacttacaa caattccaat gagcttctcg atccgaacag tccctattac
                                                                       900
cgtccggagg ttatcggttt gaaaacagga accagcagtc ttggcggcgc atgtattgtt
                                                                       960
tctgcagcgg tgatggacgg agaaacctat atctgtgtag ttatgggttc tacaaaggaa
                                                                      1020
agcaggtttc aggacagcgt tgatatttta gataaaatca aagcccagta a
                                                                      1071
      <210> 37
      <211> 969
      <212> DNA
      <213> Enterococcus faecium
      <400> 37
atggagaaaa taatagacat aactgttttt ggctgcgagc cagacgaaat ggaggttttt
                                                                        60
                                                                       120
caaaagattt cttatgagct tggtgttaca gccacactca taaaagattc tatatcagaa
agcaatgctg gattagctaa tggatgccgg tgtgtaagcg taagccataa agcggagcta
                                                                       180
                                                                       240
tcagaaccga ttcttcttgc gctaaaaaat gcaggggtaa aatatatcag tacccggagc
                                                                       300
attggtttta accatattga tatacaggcg gctgggttac tgggtatggt tgttggcaca
gtagaatact cgccgggaag tgtggccgat tataccgtca tgctgatgct tatgctgatg
                                                                       360
cgtggcacaa agtcgattct gcgtgaaacc cagaggcaga attattgcct gaatgacctg
                                                                       420
                                                                       480
cgcggaaaag aactgcggga tatgaccgtg ggtgtgttag gaactgggcg aatcggacag
                                                                       540
gcagtcatgg agcgcctgga gggattcggt tgtaaggtat tggcgtatga ccgaaatcaa
```

aaagcaggag cagactatgt ttcgtttcat gaactgctga aaaaaagtga cattgttaca 600 ctgcatatcc cgttggcgga ggatacccgc catatgattg gctatgaaga gctggaaatg 660 720 ttggtagaag cattaaaagg acagaaaatc ggcggcgccc tggatgtttt ggaaggcgaa 780 gaaggtatct tttaccatga ctgcacccaa agaagaatag aacatccttt cctgtcggtc 840 ctgcagggaa tgccgaatgt cattgttacg ccgcacacag cctatcatac ggaacgggtg 900 ttggttgaca cggtcagaaa tactattaga aattgtttga attttgaaag gagtctggga 960 aatgtttag 969 <210> 38 <211> 1032 <212> DNA <213> Enterococcus faecium <400> 38 atgtttagaa ttaaagttgc agttctgttt gggggctgtt cagaggaaca taatgtttcg 60 ataaaatctg cgatggagat tgccgcaaac atagatacaa aaaaatatca gccttattat 120 attggaatca caaaatccgg cgtttggaaa atgtgtgaaa aaccttgttt ggagtgggaa 180 caatatgegg gggateeggt tgtttttteg eeggacagaa gtaegeatgg tetgetgata 240 caaaaagaca aagggtatga aatccagcct gtggatgtgg tgtttccgat gattcatggc 300 aagtttgggg aggatggete catacaagge ttgettgaat tgtcaggeat teegtatgtg 360 ggatgcgata ttcaaagctc cgtgatctgc atggataagg cgcttgcata taccgttgtg 420 aaaaatgegg gtateactgt geetgggtte eggateette aggaggggga tegeetggaa 480 acggaggatt tegtatatee egtttttgta aageetgeee gtteeggete ateetttgge 540 gtaaacaagg tatgcaaggc agaagaactg caggcagcaa tcgaagaagc aagaaaatat 600 660 gacagcaaga ttttgattga agaggccgtt accgggagtg aggtaggctg cgccatactg ggaaacggaa atgatctcat ggctggcgag gtggatcaga ttgagctgag acacggcttt 720 tttaagattc atcaggaagc acagccggag aagggatctg aaaatgcagt catccgagtt 780 ccagccgcct taccggatga ggtaagagaa cagattcagg aaacggcaat gaagatttac 840 900 cggatacttg gctgcagagg attggcccgc attgacctgt ttttgcggga ggacggttgc 960 attgtgctga atgaagtgaa taccatgcca ggttttactt cctacagccg ctatccccgc atgatgacag cagccggttt tacgctttct gaaatactgg atcgcttgat tgaactttca 1020 cttaggaggt aa 1032 <210> 39 <211> 609 <212> DNA <213> Enterococcus faecium <400> 39 60 atgaaaaaga actttgcctt tttagatgaa atgattcccg ggatccgatg ggatgccaaa tatgccacct gggacaattt caccgggaaa ccggtagacg gatacatggt aaaccgtgtt 120 180 atgggaacga aggagctggg agttgctttg cgtaaggctc agaagatggc ggagaagcta ggatatggtt tgctcttatg ggacggctat cgcccccagt gcgcagtgaa ttgttttctg 240 aattgggctt cccaaccgga agacaatctg acgaaaaagc gttactatcc aaatatcaaa 300 aggaatgaga tggttgcgaa ggggtatgtg gcctcacaat ccagccacag ccgtggaagt 360 420 acggttgacc ttacaatttt tcatttgaat agcggtatgc ttgttcctat gggtggagat 480 tttgacttta tggatgaacg gtcacaccat gccgcaagcg gtctgagcga agaagaatca 540 aaaaaccggc agtgcttgcg ttatatcatg gagagtagcg gatttgaagc ctatcgttat gaatggtggc attacgtctt ggcggacgag ccatacccgg atacatattt tgatttttgc 600 609 attgcctag